CIVIL TECH LABS

35/40, "Kaivara Krupa" First Floor, 38th 'A' Cross, II Main, 8th Block, Jayanagar,
BANGALORE-560070. Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 40mm ↓ Graded

Name & Address of the Customer	Executive Engineer, Project division Yalahanka BBMP - Bangalore
Name of Work	Developmental work to vivekanand park providing Cobbles stones & fixing at Children play equipments in vishwanagar park in ward no-03
Name of the Agency	M/s. DKN & Associates
Date of Testing	29/11/2020
Specific Gravity	**2.67**
Water Absorption	**0.30%**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2016), IS : 2386 (Part III)–1963 (Reaffirmed 2016)

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS 383 : 2016	Remarks
80	**100**	100	**Satisfies the requirement**
40	**98.1**	90-100	
20	**59.5**	30-70	
10	**32.6**	10-35	
4.75	**3.8**	0-5	

Note:

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3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Technical manager

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TEST REPORT

GRADATION TEST ON FINE AGGREGATES

Name & Address of the Customer	Executive Engineer, Project division Yalahanka BBMP - Bangalore
Name of Work	Developmental work to vivekanand park providing Cobbles stones & fixing at Children play equipments in vishwanagar park in ward no-03
Name of the Agency	M/s. DKN & Associates
Date of Testing	29/11/2020
Specific Gravity	**2.57**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016), IS : 2386 (Part III)-1963 (Reaffirmed 2016)

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS 383 : 2016				Grading Zone	Remarks
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV		
Crushed Stone Sand	10	**100**	100	100	100	100	II	**Satisfies the requirement**
	4.75	**98.2**	90-100	90-100	90-100	95-100		
	2.36	**86.6**	60-95	75-100	85-100	95-100		
	1.18	**73.5**	30-70	55-90	75-100	90-100		
	0.6	**55.2**	15-34	35-59	60-79	80-100		
	0.3	**27.2**	5-20	8-30	12-40	15-50		
	0.15	**16.6**	**0-20***	**0-20***	**0-20***	**0-20***		

► ***For Crushed Stone Sand the permissible % passing on upper limit for 150μ IS Sieve is increased from 10 for Zone I,II,III & 15 for Zone IV, to 20%**

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TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	Executive Engineer, Project division Yalahanka BBMP - Bangalore
Name of Work	Developmental work to vivekanand park providing Cobbles stones & fixing at Children play equipments in vishwanagar park in ward no-03
Name of the Agency	M/s. DKN & Associates
Date of Testing	01/12/2020
Grade	53

Tests	**Test Method As Per IS & Apparatus**		**Results**		**Requirements as per IS 12269:1987**	**Remarks**
	IS Code	**Method**	**Value**	**Unit**		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	48	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	489	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	3	mm	Not More Than 10 mm	Satisfies Requirement

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 20mm ↓ Graded

Name & Address of the Customer	Executive Engineer, Project division Yalahanka BBMP - Bangalore
Name of Work	Developmental work to vivekanand park providing Cobbles stones & fixing at Children play equipments in vishwanagar park in ward no-03
Name of the Agency	M/s. DKN & Associates
Date of Testing	29/11/2020
Specific Gravity	**2.63**
Water Absorption	**0.31%**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2016), IS : 2386 (Part III)–1963 (Reaffirmed 2016)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS 383 : 2016**	**Remarks**
40	**100**	100	**Satisfies the requirement**
20	**98.2**	90-100	
10	**49.1**	25-55	
4.75	**8.6**	0-10	

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TEST REPORT
TESTS ON SOLID BLOCKS

Name & Address of the Customer	Executive Engineer, Project division Yalahanka BBMP - Bangalore
Name of Work	Developmental work to vivekanand park providing Cobbles stones & fixing at Children play equipments in vishwanagar park in ward no-03
Name of the Agency	M/s. DKN & Associates
Date of Testing	03/12/2020
Technical Reference	IS: 2185(Part-I)-2005 (Reaffirmed 2015)
No. of samples tested	8
Grade	C (4.0)

1. COMPRESSIVE STRENGTH

Sl. No.	**Nominal Dimension (cms)**	**Compressive strength (N/mm^2)**	**Minimum Compressive Strength as per IS: 2185(Part-I)-2005 (Reaffirmed 2015)**	
			Individual	**Avg. of 8 samples**
1	40x20x20	4.1	**Minimum Compressive Strength of Individual Units**	**Minimum Average Compressive Strength of Units**
2		4.5		
3		4.3	For Grade C (5.0)- 4.0 N/mm^2 For Grade C (4.0)- 3.2 N/mm^2	For Grade C (5.0)- 5.0 N/mm^2 For Grade C (4.0)- 4.0 N/mm^2
4		4.6		
5		4.0		
6		4.2		
7		4.4		
8		4.3		
Average Compressive strength (N/mm^2)		4.3		

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2. WATER ABSORPTION

Sl. No.	Nominal Dimension (cms)	Water Absorption (% by weight)	Average (% by weight)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2015)
1	40x20x20	8.5	**8.5**	When three samples are tested the average water absorption shall not be more than 10% by mass
2		7.8		
3		9.2		

3. BLOCK DENSITY

Sl. No.	Nominal Dimension (cms)	Block Density (Kg/cum)	Average (Kg/cum)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2015)
1	40x20x20	1864.2	**1864.6**	The Solid Concrete blocks used as load bearing units shall have average block density not less than 1800Kg/m³
2		1863.5		
3		1866.2		

Remarks	Satisfies the Requirements.

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